

**SX011840-A**

Crossed roller bearing

Crossed roller bearings dimension series 18 to
DIN 616

Technical information

**Main Dimensions & Performance Data**

d ₁	200 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,024 mm	Bore diameter lower tolerance
D _a	250 mm	Outside Diameter
	0 mm	Outside diameter upper tolerance
	-0,029 mm	Outside diameter lower tolerance
H	24 mm	Height of the assembled bearing
h _i	24 mm	Height inner ring
	0,1 mm	Width upper tolerance
	-0,1 mm	Width lower tolerance
≈m	2,957 kg	Weight

Dimensions

D _i	225,8 mm	Inner diameter outer ring
D _M	225 mm	Rolling element pitch circle diameter
d _a	224,2 mm	Outer diameter inner ring
h	24 mm	Height of individual ring
	0 mm	Height of individual ring upper tolerance
	-0,025 mm	Height of individual ring lower tolerance
r _{min}	1,5 mm	Chamfer dimension
S	2 mm	Diameter of lubrication hole

**Temperature range**

T_{\min}	-30 °C	Operating temperature min.
T_{\max}	80 °C	Operating temperature max.

Calculation factors

	0,015 mm	Running accuracy, radial
	0,01 mm	Running accuracy, axial
$S_{r \min}$	0,005 mm	Minimum radial bearing clearance, at standard bearing clearance
$S_{r \max}$	0,025 mm	Maximum radial bearing clearance, at standard bearing clearance
$S_{k \min}$	0,01 mm	Minimum axial tilting clearance, at standard bearing clearance
$S_{k \max}$	0,05 mm	Maximum axial tilting clearance, at standard bearing clearance
RLO_{\max}	0,005 mm	Low clearance: Radial clearance
RLO_{\max}	0,01 mm	Low clearance: Preload
VSP_{\min}	0,005 mm	Minimum bearing preload
VSP_{\max}	0,025 mm	Maximum bearing preload
C_a	104.000 N	Basic dynamic load rating, axial
C_{0a}	400.000 N	Basic static load rating, axial
C_r	74.000 N	Basic dynamic load rating, radial (for radial load only)
C_{0r}	197.000 N	Basic static load rating, radial (for radial load only)
$N_{G \text{ oil}}$	680 1/min	Limiting speed for oil lubrication with normal clearance
$N_{G \text{ Grease}}$	340 1/min	Limiting speed for grease lubrication with normal clearance
$N_{G \text{ oil}}$	340 1/min	Limiting speed for oil lubrication with preload
$N_{G \text{ Grease}}$	170 1/min	Limiting speed for grease lubrication with preload
	61840	Dimensions identical to ISO dimension series 18



Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed



Small design envelope